

REMARKS

Reconsideration and allowance of the above-referenced application are respectfully requested.

I. STATUS OF THE CLAIMS

Claims 1, 6, 9, 10, and 12 are amended herein.

In view of the above, it is respectfully submitted that claims 1, 4-6, and 9-12 are currently pending and under consideration.

II. CLAIMS OBJECTIONS

In item 2 on page 2 of the Office Action, claims 1 and 6 are objected to because of informalities. Claims 1 and 6 are amended herein to overcome the objection.

In view of the above, it is respectfully requested that the objection is overcome.

III. REJECTION OF CLAIMS 6, 9, 10, AND 12 UNDER 35 U.S.C. § 101

On page 2 of the Office Action, claims 6, 9, 10, and 12 are rejected under 35 U.S.C. § 101 because the claimed invention is directed to non-statutory subject matter. Claim 6 is amended herein to overcome the rejection.

In view of the above, it is respectfully submitted that the rejection is overcome.

IV. REJECTION OF CLAIMS 1, 5, 6 AND 10 UNDER 35 U.S.C. § 103(A) AS BEING UNPATENTABLE OVER GADH ET AL. (US 6,629,062) IN VIEW OF FUNKHOUSER ET AL. (NPL DOCUMENT)

According to claim 1, the present invention provides "an interference avoiding unit generating an object operation instruction to avoid the interference, if the occurrence of the interference is detected by said interference detecting unit" and "a discontinuity detecting unit detecting an occurrence of discontinuous scenes, which are too unnaturally discontinuous to reflect a real world change and are caused by executing the eye point operation instruction or the object operation instruction."

The Examiner maintains that Gadh et al. ("Gadh") teaches the claimed interference detecting unit and the claimed interference avoiding unit (see page 5 of the Office Action). Gadh checks whether an intersection between objects occurs or not, in creating or editing the objects (see column 24, lines 33-62 of Gadh).

However, Gadh describes, when an intersection is detected, the user is warned and asked for instructions (see column 29, lines 5-7; column 31, lines 40-44). That is, the system of Gadh does not *automatically* generate instructions sequence to avoid the interference. Therefore, Gadh fails to disclose or suggest a feature corresponding to the interference avoiding unit recited in claim 1 of the present invention.

The Examiner further relies on the disclosure of Funkhouser et al. ("Funkhouser") and believes that Funkhouser discloses the claimed discontinuity detecting unit. On page 6 of the Office Action, the Examiner interprets "discontinuity to mean a jump in the animation of the movement of the object, such a jump or discontinuous movement can be due to a frame too low for the animation movement." However, the Examiner largely misinterprets the meaning of "discontinuity" as the term relates to the present invention. Moreover, Funkhouser is fundamentally different from the claimed present invention.

As disclosed at page 2, lines 3-6 of the Applicant's specification, discontinuous scenes are described, for example, as a scene on which a component is already attached to a device succeeds immediately after a scene on which the component is brought close to the device to be assembled. Contrary to the Examiner's interpretation, the discontinuity detecting unit of the present invention determines whether or not a discontinuous scene is caused by executing an instruction (see claim 1). In other words, for example, the present invention determines whether a scene *occurring in the future* is discontinuous to the current scene or not.

Funkhouser is merely concerned with providing an algorithm that will render a visible object to produce the best image possible within a user-specified target frame time. Funkhouser even describes how the Feedback algorithm generates a fairly uniform frame rate in situations of smoothly varying scene complexity, but like the Static algorithm, the Feedback algorithm has its problems (see all of item 8 on page 252 of Funkhouser). Funkhouser describes that the Optimization algorithm adjusts image quality to maintain a uniform, interactive frame rate, to render the best image possible (see bottom of page 252 through page 253).

Funkhouser is completely silent regarding the claimed discontinuity detecting unit as recited in claim 1 of the present invention and is concerned with providing an algorithm to produce a better image for a user.

Further, the present invention discloses that discontinuity is detected if scenes themselves are discontinuous. By contrast, Funkhouser is concerned with whether the interval between a frame and its successive frame becomes too long or not (i.e., whether a frame rate is too slow). Funkhouser is not concerned with whether the image of one frame is discontinuous from the image of its successive frame or not.

According to the present invention, the complementary instruction generating unit comes to generate a scene which complements between discontinuous scenes and thereby increases the number of scenes, which may result in taking a longer time than originally required for replaying an animation. Funkhouser is concerned with varying a time spent for rendering each frame image and not with varying the number of frames. Thus, Funkhouser has nothing to do with an operation that leads to any increases in the number of frames.

Therefore, Gadh and Funkhouser, either alone or in combination, do not disclose or suggest the features as recited in claim 1 of the present invention.

Dependent claim 5 (depending from claim 1) and 10 (depending from claim 6) recite patentably distinguishing features of their own, and further, are at least patentably distinguishing due to their dependencies from independent claims 1 and 6. For example, claim 5 provides, "an editing rule storing unit storing editing rules for editing the object operation instructions sequence when an object operation instruction is inserted/deleted/moved in/from/within the operation instruction sequence, when an animation is edited" and "an operation instruction editing unit referencing the editing rules, and preventing/avoiding an operation if the operation for inserting /deleting/moving an object operation instruction which violates the editing rules in/from/within the operation instruction sequence is performed." The Examiner relies on column 23, lines 3-5 and column 20, lines 13-27 of Gadh, which is silent regarding any of the features of claim 5.

In view of the above, it is respectfully submitted that the rejection is overcome.

V. REJECTION OF CLAIMS 4, 9, 11, AND 12 UNDER 35 U.S.C. § 103(A) AS BEING UNPATENTABLE OVER GADH ET AL. IN VIEW OF FUNKHOUSER ET AL. IN FURTHER VIEW OF KONDO (US 6,812,924)

Dependent claim 4 (depending from claim 1) and 9, 11, and 12 (depending from claim 6) recite patentably distinguishing features of their own, and further, are at least patentably distinguishing due to their dependencies from independent claims 1 and 6.

In view of the above, it is respectfully submitted that the rejection is overcome.

VI. CONCLUSION

In view of the foregoing amendments and remarks, it is respectfully submitted that each of the claims patentably distinguishes over the prior art, and therefore defines allowable subject matter. A prompt and favorable reconsideration of the rejection along with an indication of allowability of all pending claims are therefore respectfully requested.

If there are any additional fees associated with filing of this Amendment, please charge the same to our Deposit Account No. 19-3935.

Respectfully submitted,

STAAS & HALSEY LLP

Date: 4-24-07

By: Derrick L. Fields
Derrick L. Fields
Registration No. 50,133

1201 New York Avenue, NW, Suite 700
Washington, D.C. 20005
Telephone: (202) 434-1500
Facsimile: (202) 434-1501